

SANITARY SEWER IMPROVEMENTS TO SERVE RIVERSIDE HEALTH SYSTEM

Private Project Number
824 PPS (607861)

CITY OF WICHITA, KANSAS
Michael E. Lindebak, P.E. City Engineer
AUGUST, 1998

BENCHMARK:

"□" Located on top of West Side of McLean Blvd. and South right-of-way line of vacated Murdock
Elev. = 115.91 (City Datum)

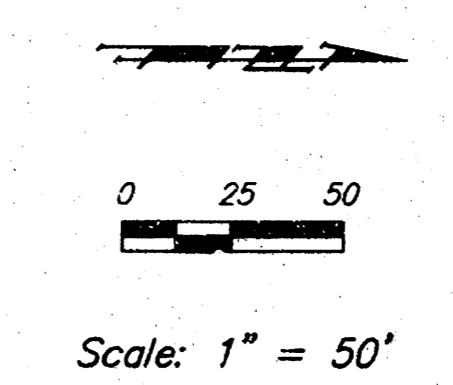
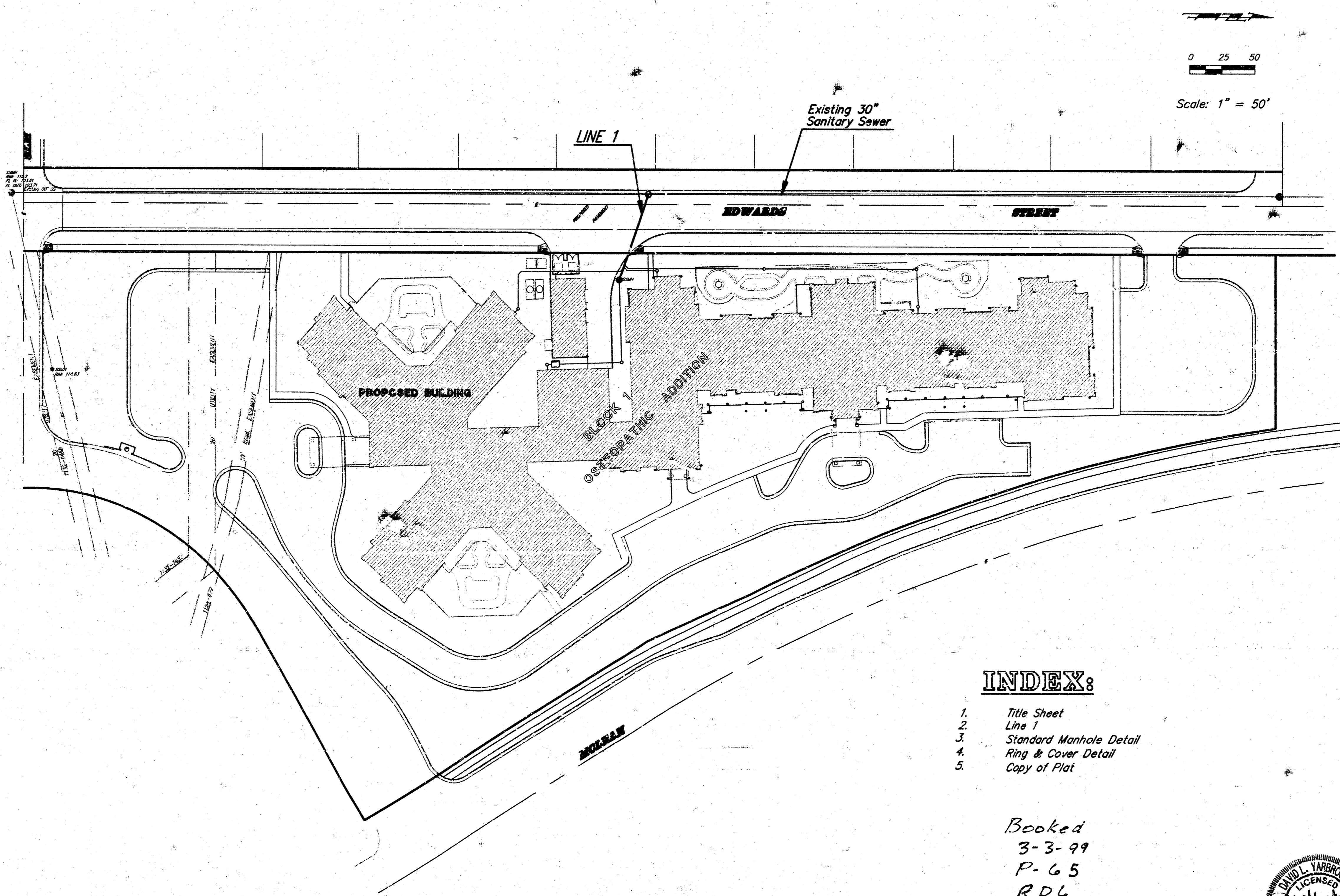
GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call	687-2470
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The Contractor must notify the following in case of an emergency:

Multimedia Cablevision	262-4270
K.G.E. Gas Service Company	383-8650
Kansas Natural Gas & Electric Company	383-9600
Peoples Gas Company	942-7600
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Dept.	268-4908
City of Wichita Sewer Maintenance	268-4071
2. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
3. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
4. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.
5. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
6. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.
7. All areas disturbed by construction operations shall be seeded with rye grass at a rate of 300 lbs/acre immediately following construction in that area. Prior to seeding, area shall be prepared per City specs.
8. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.



APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Sanitary Sewer VRH 9/8/98

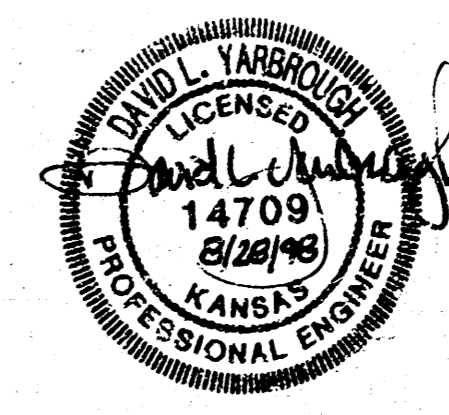
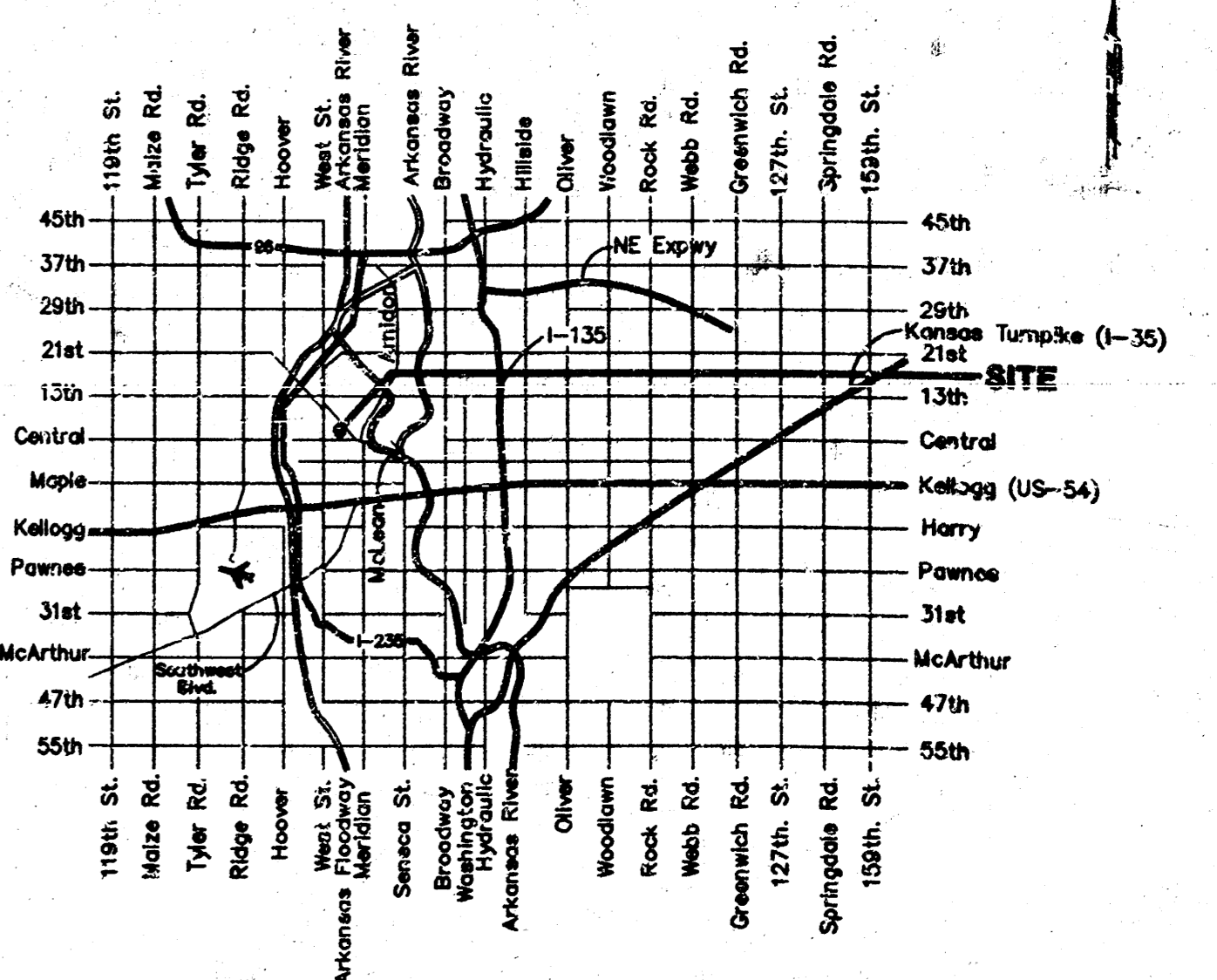
NOTE TO CONTRACTORS

Inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

INDEX:

1. Title Sheet
2. Line 1
3. Standard Manhole Detail
4. Ring & Cover Detail
5. Copy of Plat

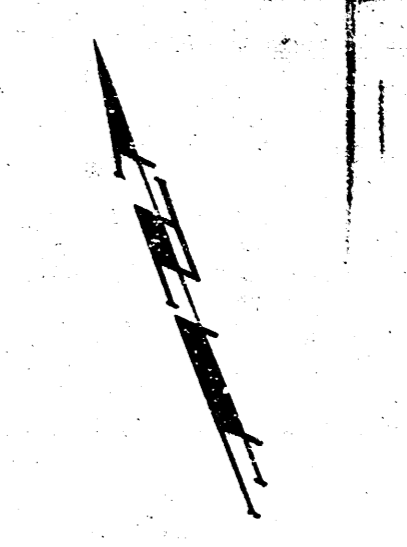
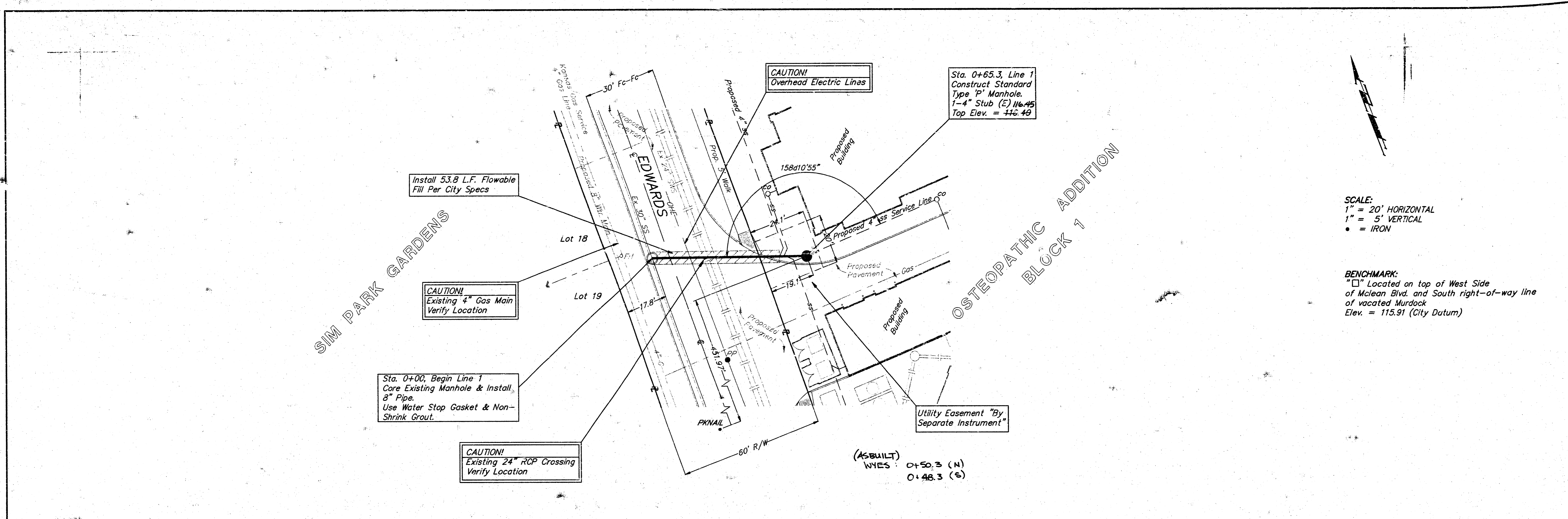
Booked
3-3-99
P. 65
RDL



Vicinity Map

PROJECT INSPECTED BY: BAUGHMAN CO. P.A.
ASBUILT 11/98 DS

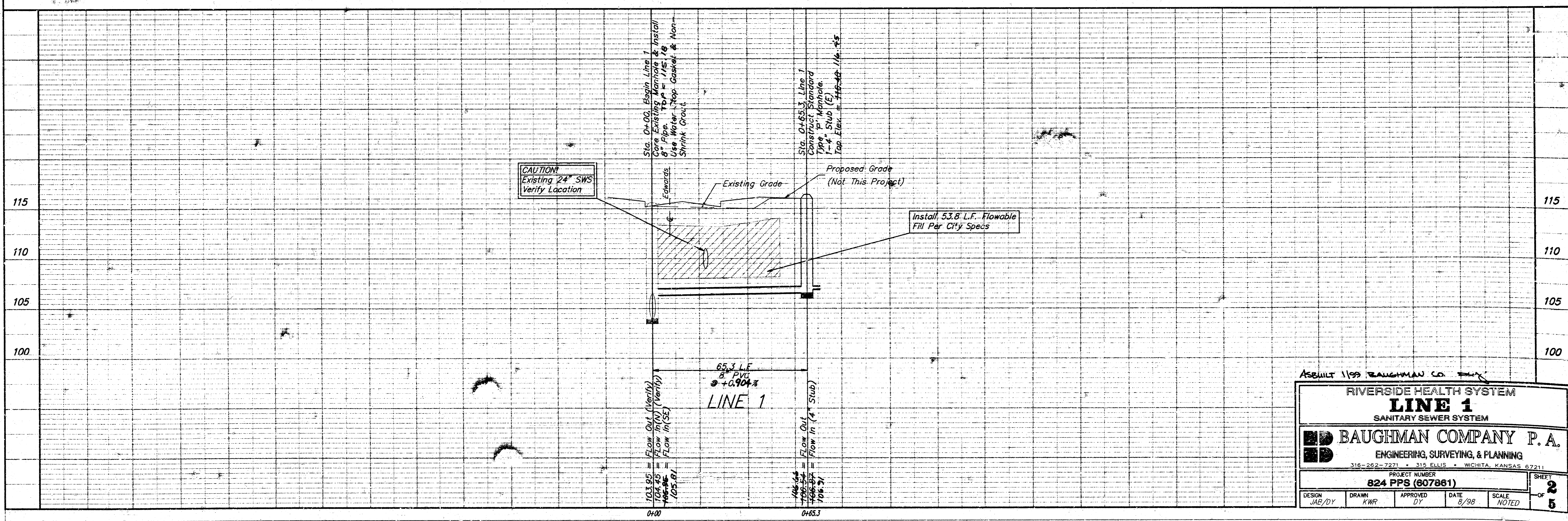
BAUGHMAN COMPANY P. A.
ENGINEERING & SURVEYING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211



SCALE:
 1" = 20' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON

BENCHMARK:
 □ Located on top of West Side
 of Mclean Blvd. and South right-of-way line
 of vacated Murdock
 Elev. = 115.91 (City Datum)

(ASBUILT)
 WYES: 0+50.3 (N)
 0+48.3 (S)



ASBUILT 1199 BAUGHMAN CO. FILE

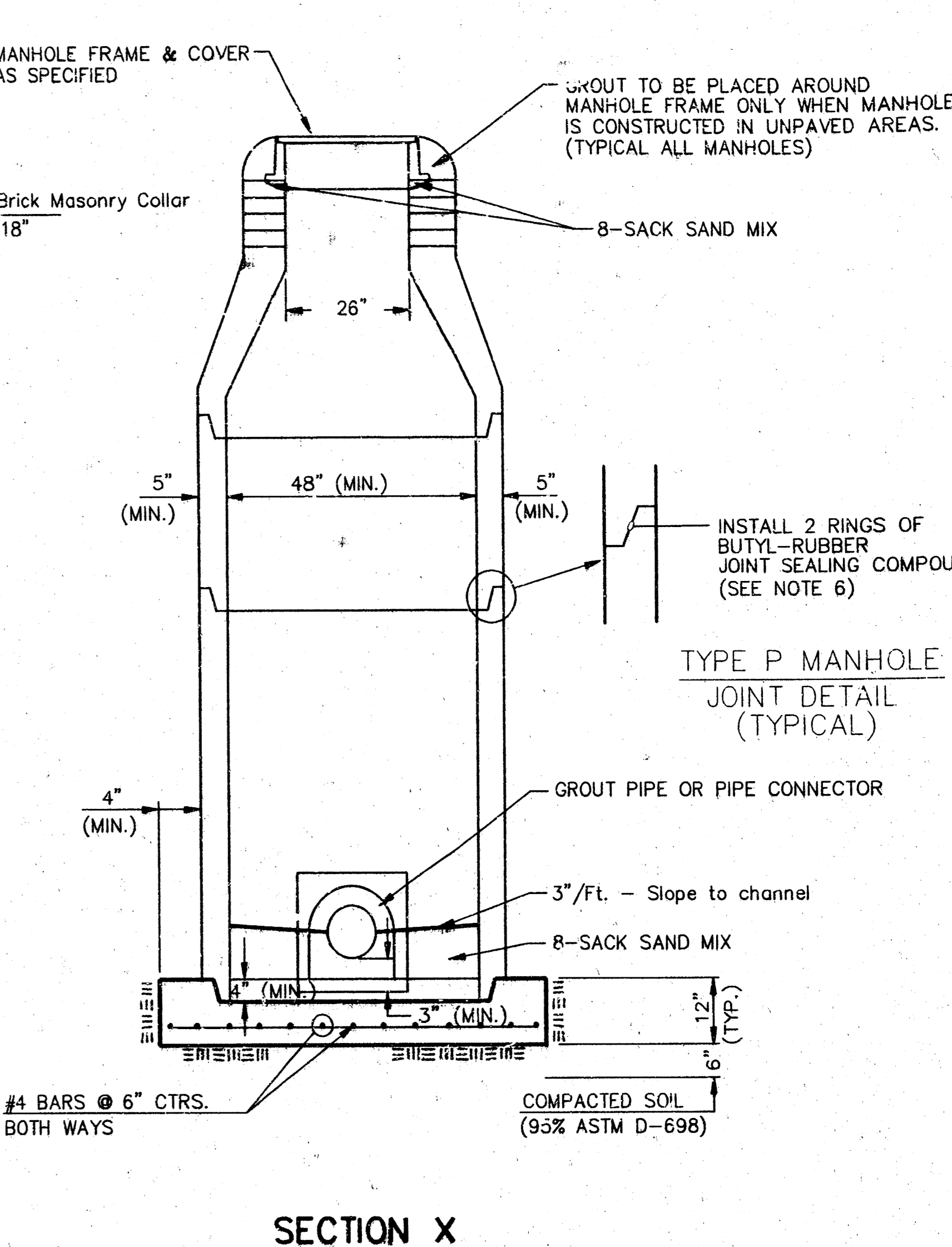
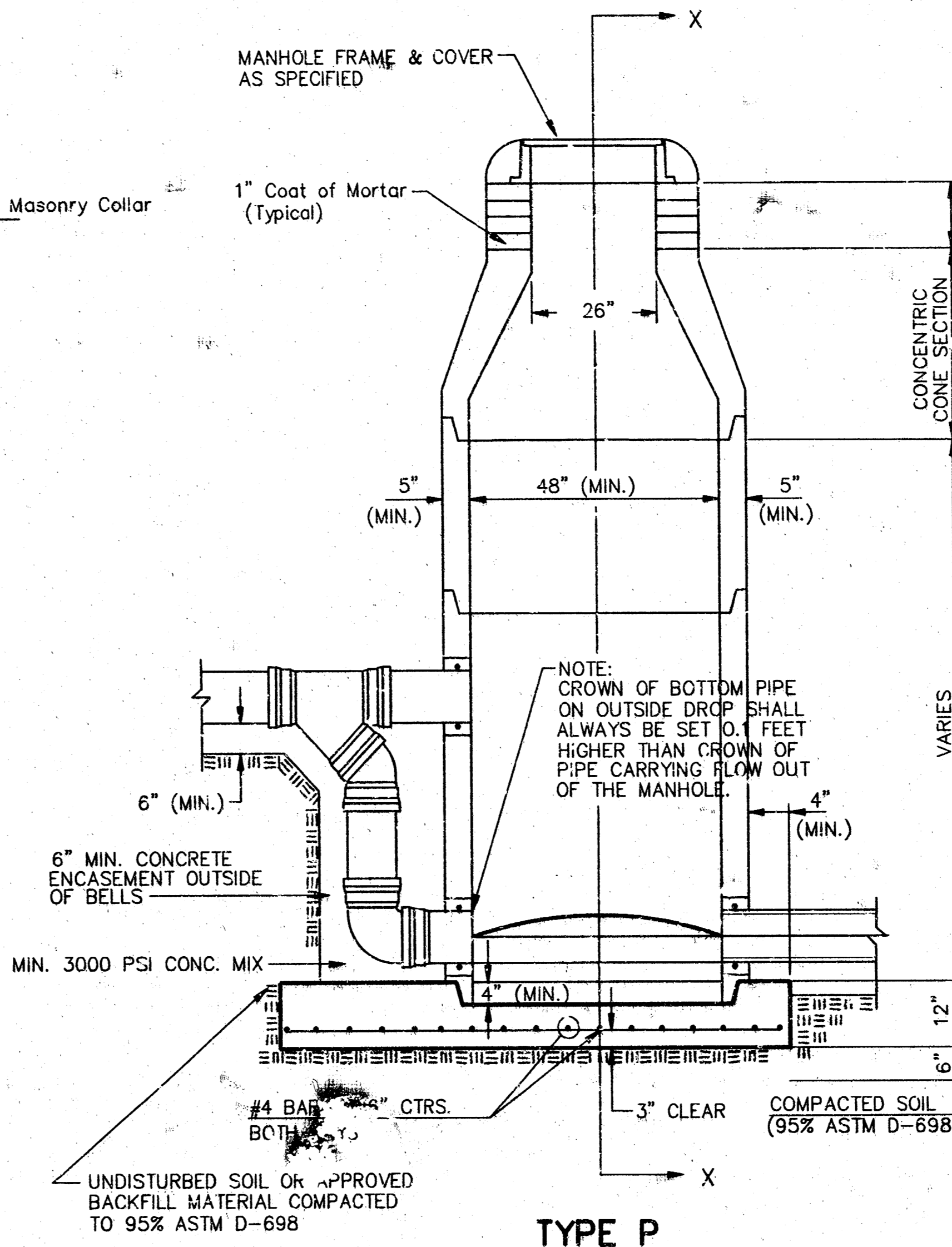
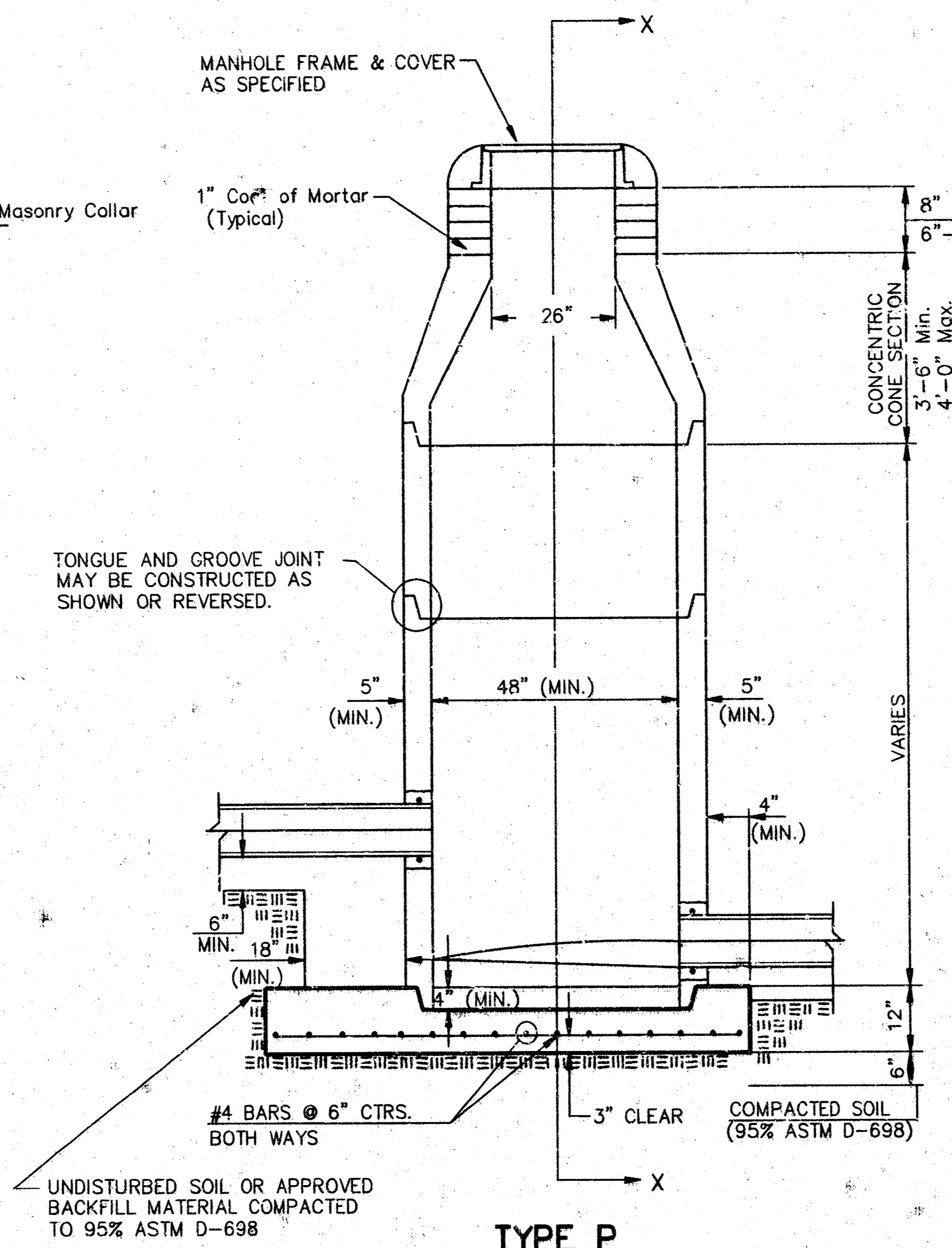
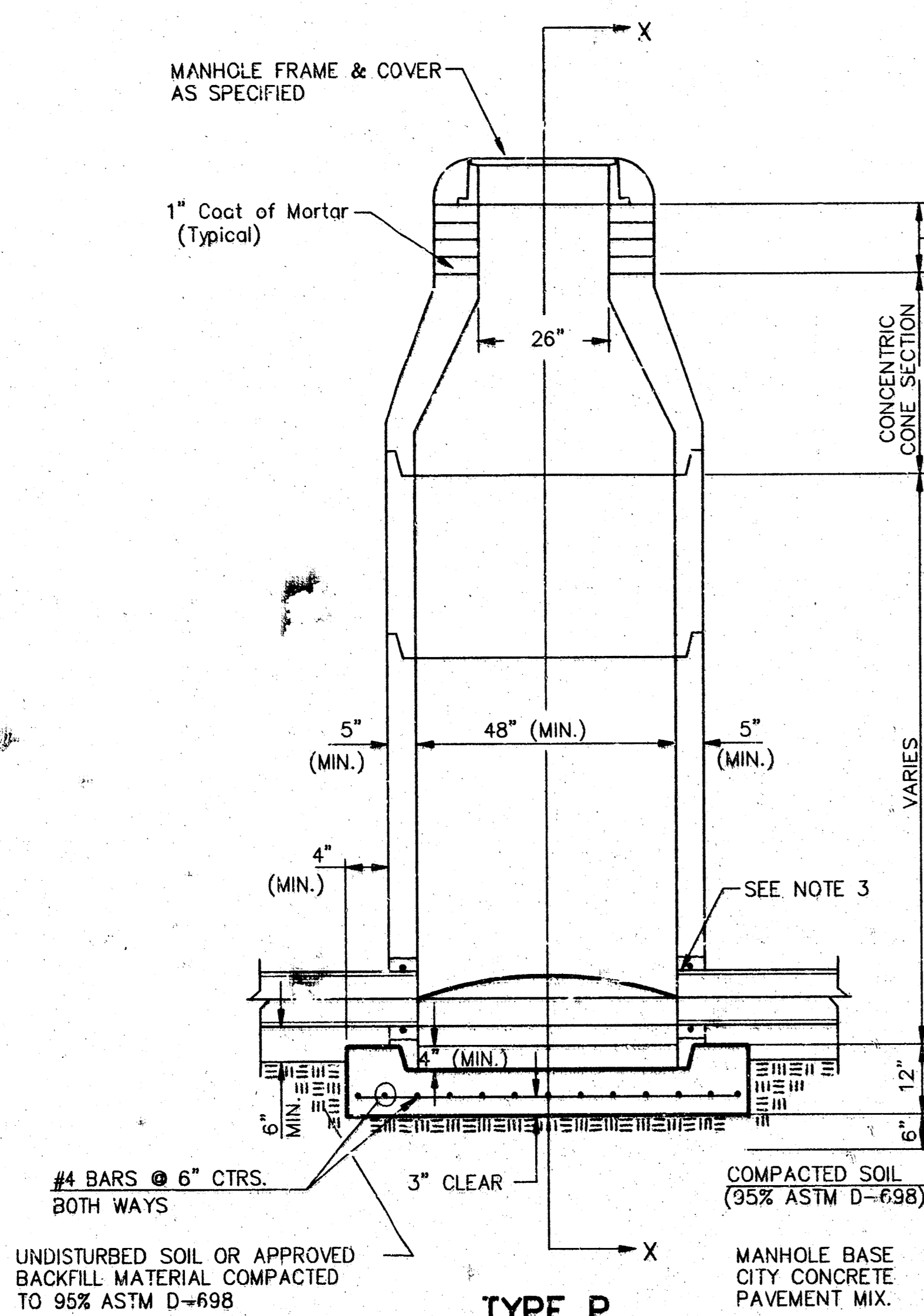
RIVERSIDE HEALTH SYSTEM
LINE 1
 SANITARY SEWER SYSTEM

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
824 PPS (807861)

DESIGN JAE/DY	DRAWN KWR	APPROVED DY	DATE 8/98	SCALE NOTED	SHEET 2 OF 5
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SEWER APPURTENANCES DETAILS

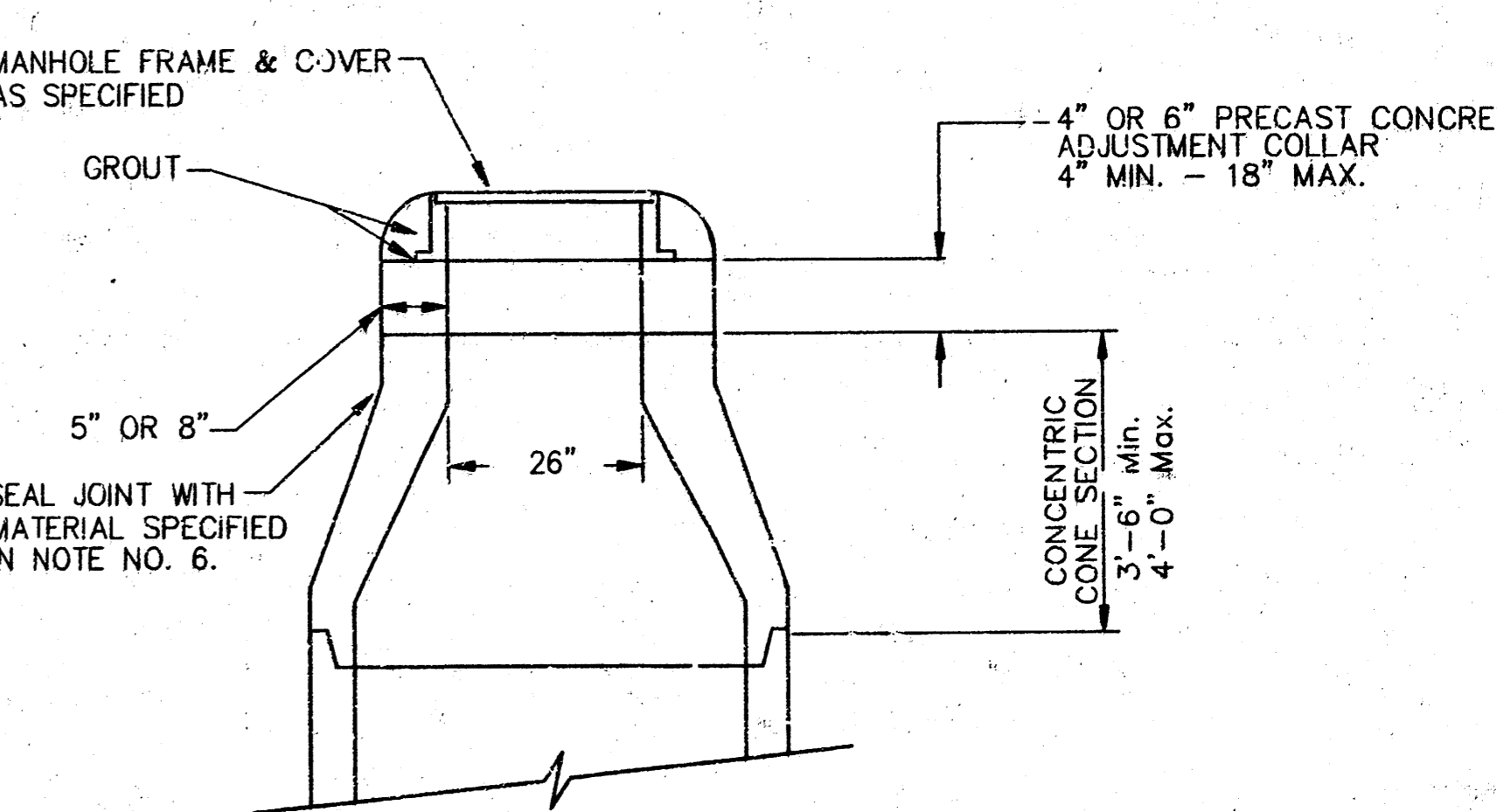


GENERAL NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASUREMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNE MEC SERIES 66 HI-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
13. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
14. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.



CITY OF WICHITA
STD. MANHOLE DETAILS
 & SEWER APPURTENANCES DETAIL

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 315-262-7271 • 315 E. JEFF • WICHITA, KANSAS 67211

PROJECT NUMBER
824-PFS (807861)

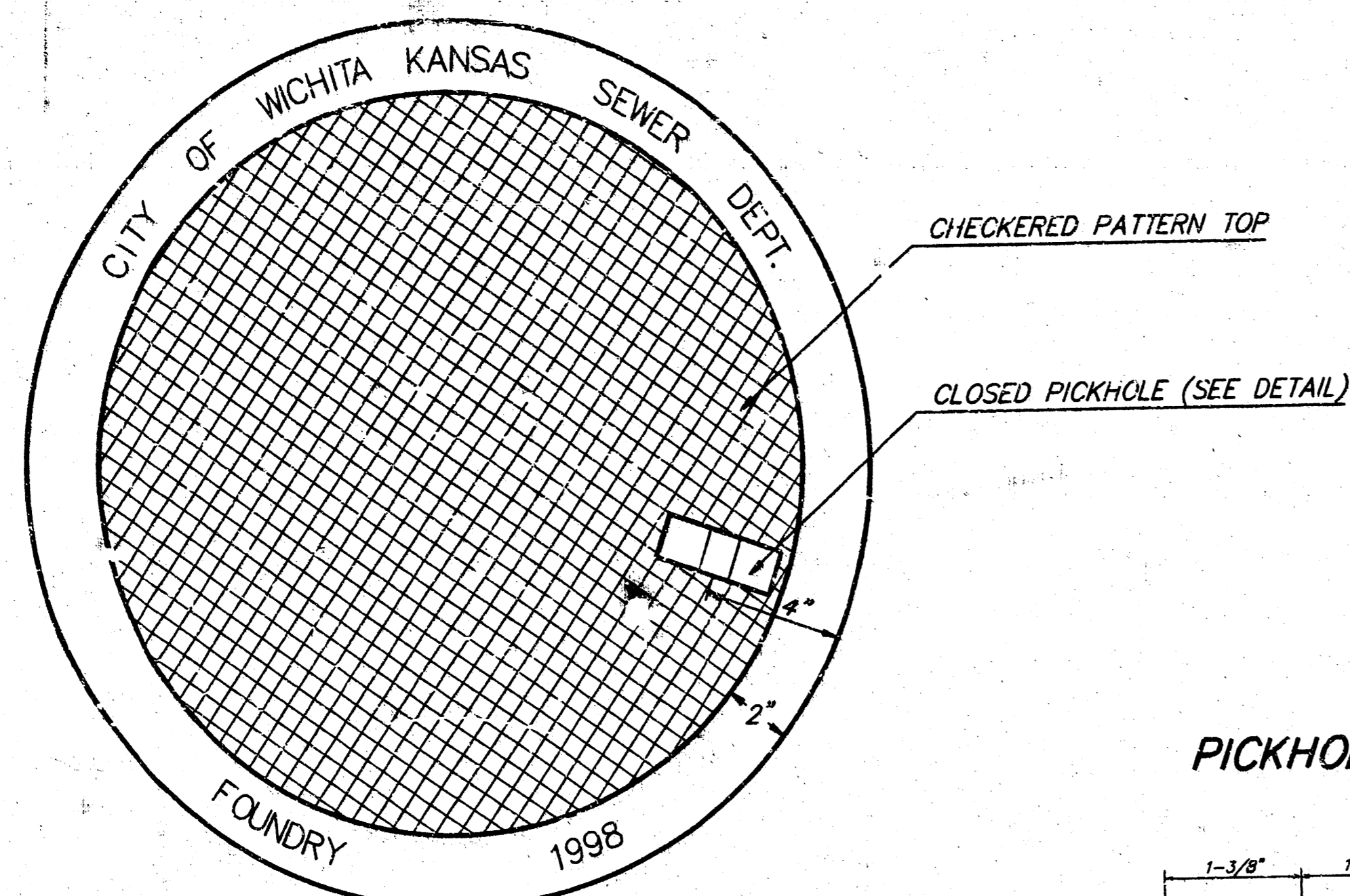
DESIGN: C.O.W. DRAWN: Staff APPROVED: DATE: SCALE: NONE

SHEET 3 OF 5

MANHOLE FRAME AND COVER DETAIL

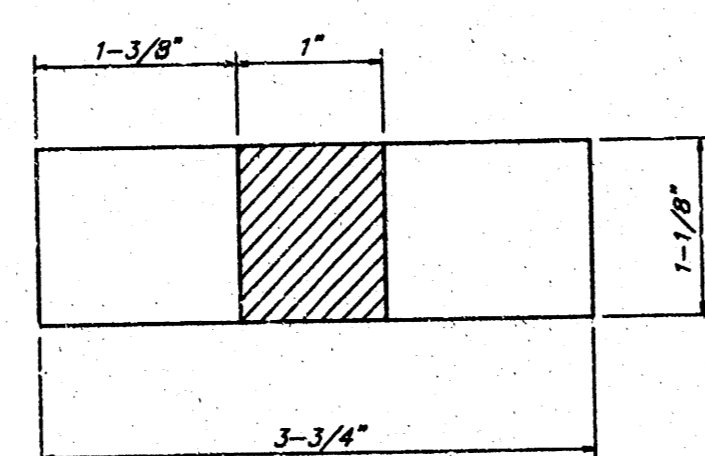
ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

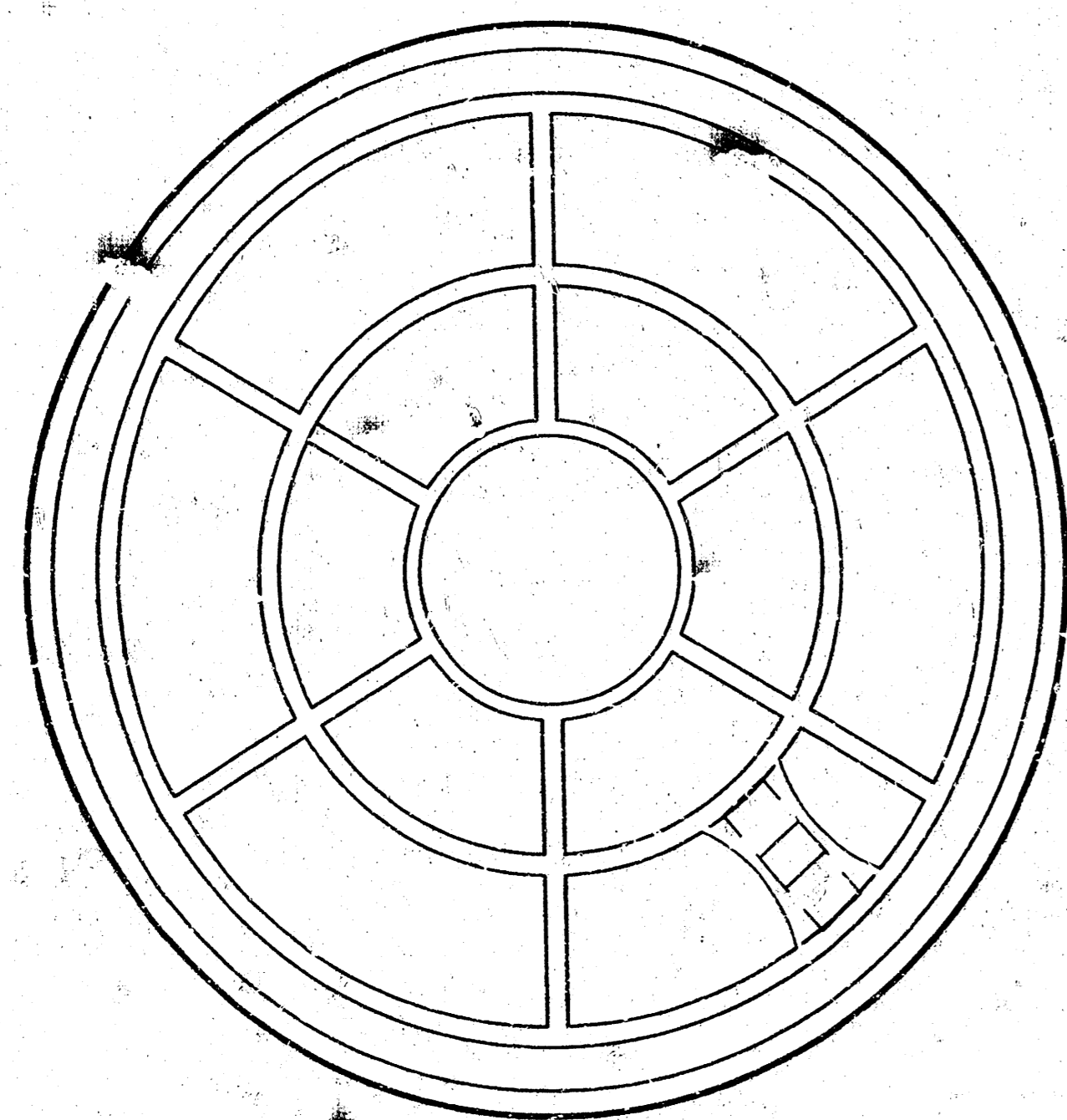


TOP VIEW

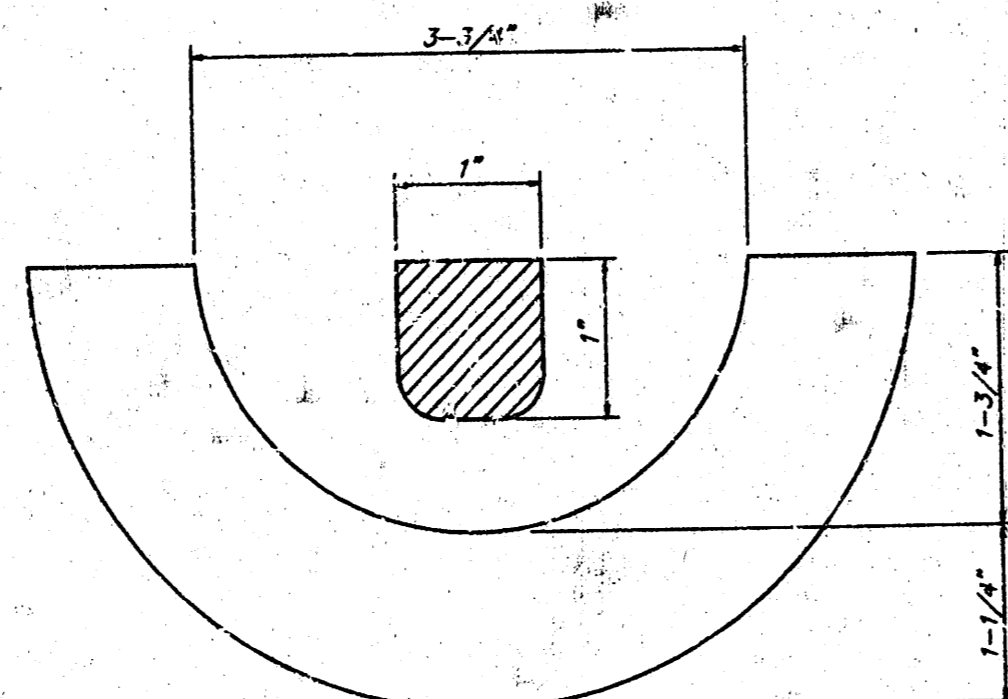
PICKHOLE DETAIL



TOP VIEW

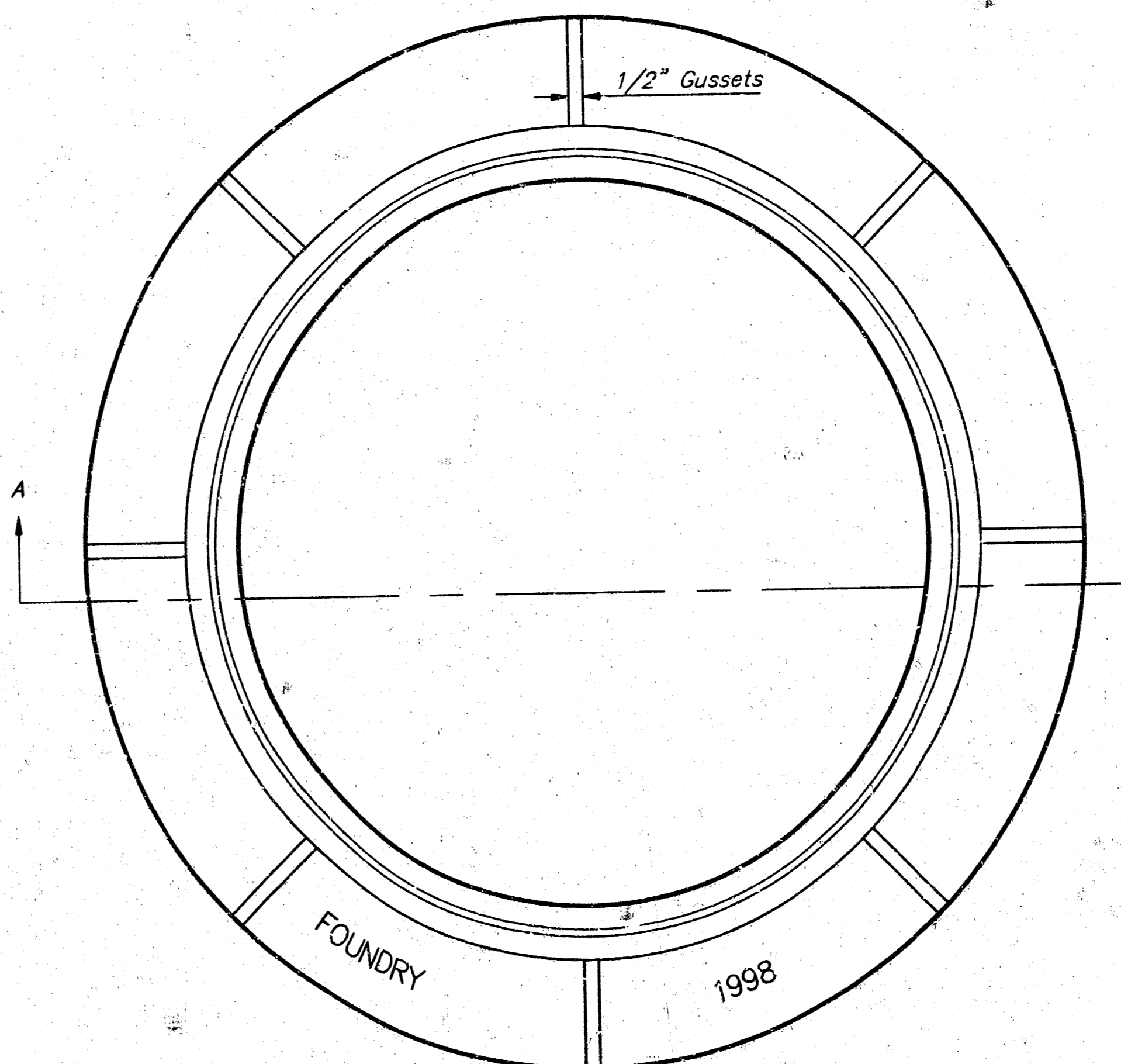


BOTTOM VIEW



SECTION VIEW

MANHOLE FRAME
Weight = 145 Lbs.



TOP VIEW

GENERAL NOTES

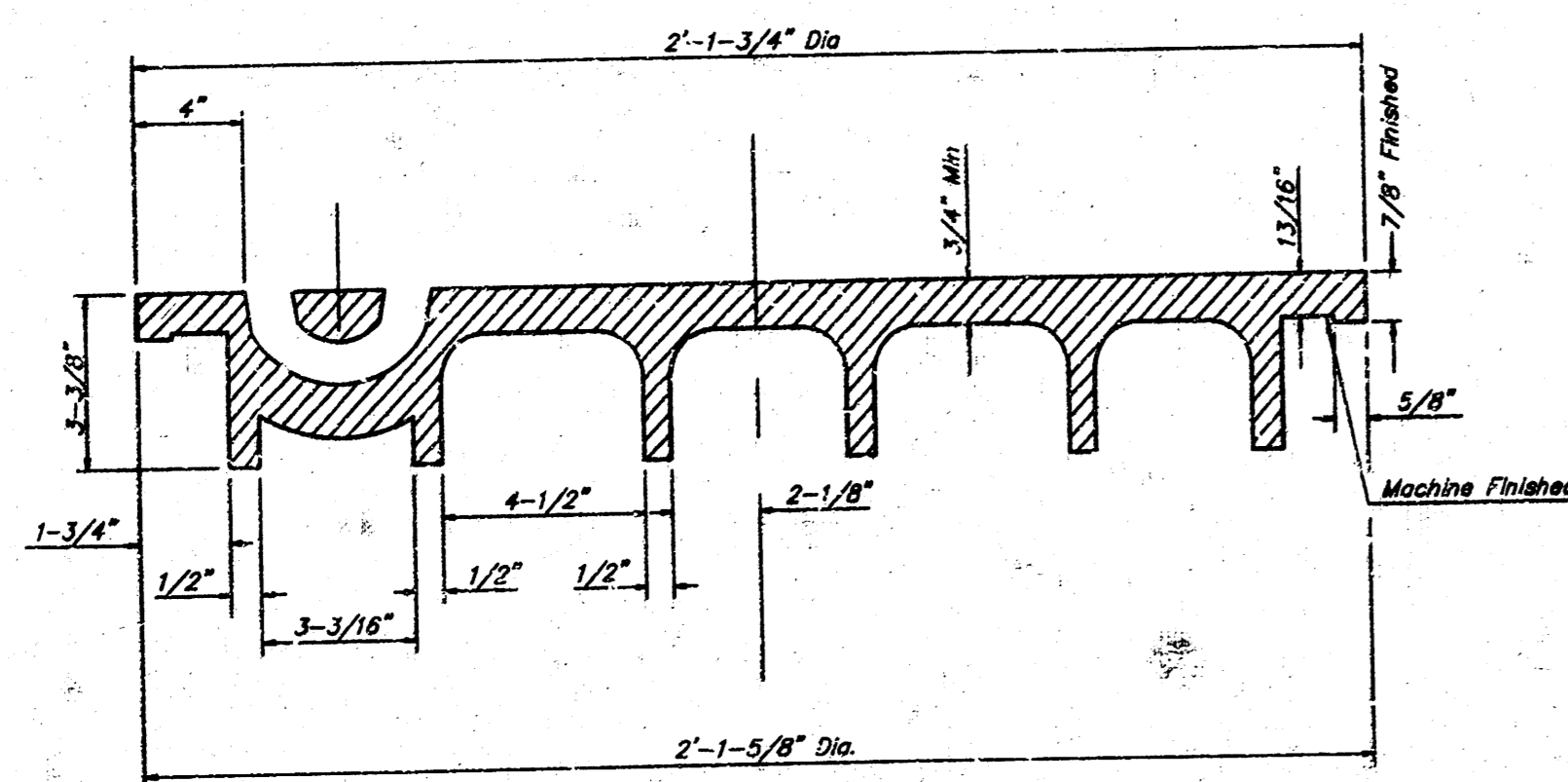
MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND HEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

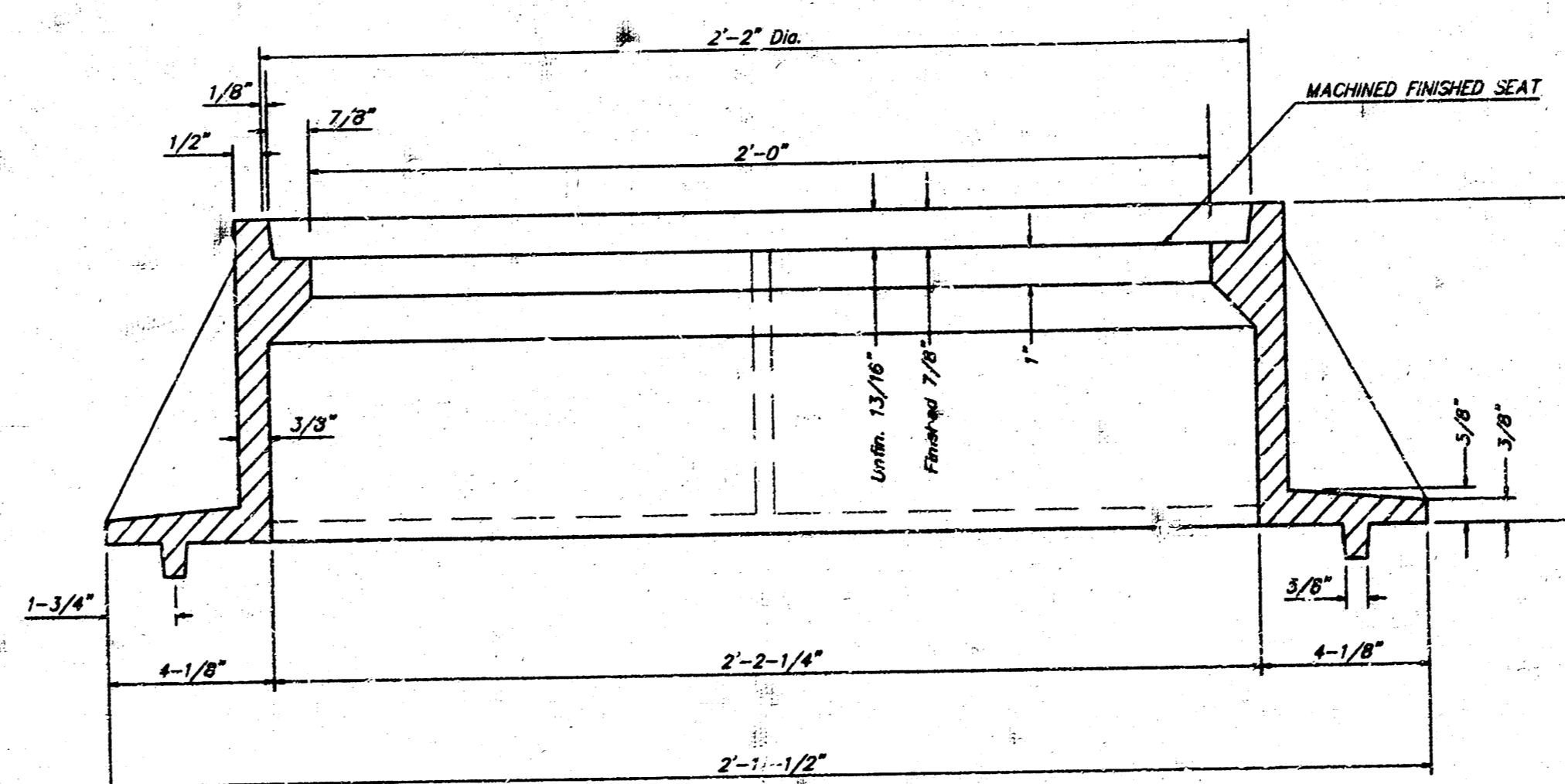
MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.



SECTION VIEW



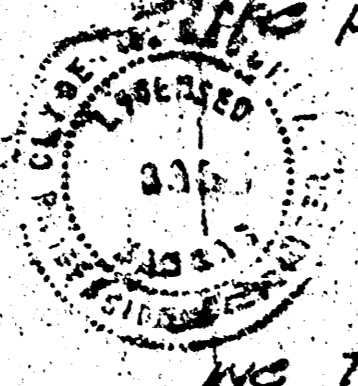
SECTION A-A

MANHOLE FRAME AND COVER DETAIL				
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS				
BAUGHMAN COMPANY P. A.				
ENGINEERING, SURVEYING, & PLANNING				
316-262-7271 • 316 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER 824 PPS (607861)				SHEET 4
DESIGN C.O.W.	DRAWN Staff	APPROVED	DATE 4/98	SCALE None

DETAILS UNWRING

OST 1152

State of Kansas }
 Sedgwick County } s.s. I, Clyde M. Baughman, Surveyor
 in aforesaid county and state do hereby certify that
 I have surveyed and plotted "OSTEOPATHIC ADDITION"
 to Wichita, Kansas and that the accompanying plat
 is a true and correct exhibit of the property sur-
 veyed described as follows: Beginning 40 feet
 North and 1898.8 feet East of the S.W. Corner of the
 S.E. 1/4 of Sec. 13, Twp. 27 S., R-1-W.; thence north
 parallel with the West line of said 1/4 Sec. 110 feet;
 thence West parallel with the South line of said
 1/4 Sec. 25.0 feet; thence North parallel with the
 West line of said 1/4 Sec. 2940.07 feet to a point
 330 feet South of the North line of said 1/4 Sec.;
 thence East parallel with the North line of said 1/4
 Sec. 205.23 feet to the intersection of a curve having
 a radius of 807.77 feet; thence southerly 171.67 feet
 and through a central angle of 12° 10' - 37" to the
 point of tangency of said curve; thence along tan-
 gent to said curve 70.25 feet to the point of cur-
 vature of a curve to the left having a radius of
 1334.59 feet; thence southerly along said curve and
 through a central angle of 38° 16' a distance of 891.34
 feet to the point of tangency of said curve; thence
 along tangent to said curve 657.56 feet to the point
 of curvature of a curve to the left having a radius
 of 1986.2 feet; thence southerly along said curve and
 through a central angle of 19° 11' - 12" a distance of 165.4
 feet; thence southerly 370.2 feet to a point 40 feet north
 of the south line of said 1/4 Sec. and 117.63 feet east
 of the center line of Meridian Avenue (as now exists)
 as extended to the north; thence West 838.38 feet to
 the place of beginning.



Clyde M. Baughman, Surveyor

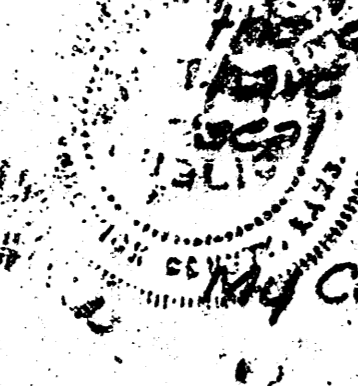
Know all men by these presents that
 we, The Osteopathic Hospital of Wichita, a corporation
 by R.L. Wright, President and Bess Cavanaugh, Sec-
 retary, has caused the land described in the survey
 and certificate to be plotted into blocks and avenues
 to be known as "OSTEOPATHIC ADDITION" to Wich-
 ita, Kansas; Edwards Avenue, Murdock Avenue and
 a 10-foot strip for Central Avenue are hereby dedicated
 to and for the use of the public.

Complete access control to Central from that portion
 of Block 1, Osteopathic Addition, extending from the
 West line of McLean to the East line of Richmond
 Avenue as extended to the north is hereby granted
 to the City of Wichita.

Complete access control from Blocks 1 & 2, Osteopathic
 Addition to McLean Boulevard is hereby granted
 to the City of Wichita.

Osteopathic Hospital of Wichita, a corporation
Robert Wright, President
Bess Cavanaugh, Secretary

State of Kansas }
 Sedgwick County } s.s. Be it remembered that on this
 24th day of October 1961, before me a notary pub-
 lic in aforesaid county and state came R.L. Wright
 President and Bess Cavanaugh, Secretary of The
 Osteopathic Hospital of Wichita, a corporation, to me
 known to be the same persons who executed the fore-
 going instrument of writing and duly acknowledged
 the execution of the same. In testimony whereof I
 have hereunto set my hand and affixed my notarial
 seal the day and year above written.



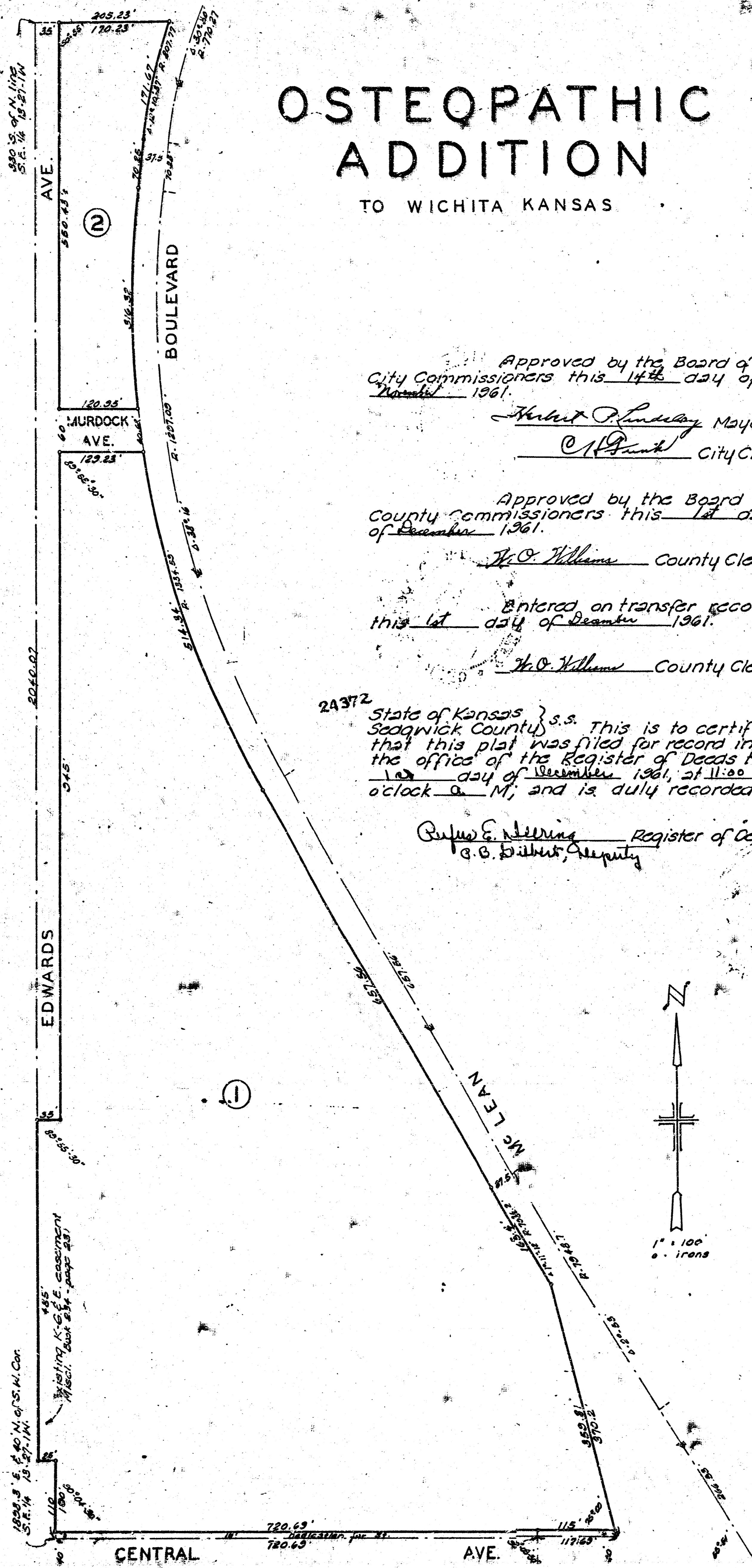
Clyde M. Baughman, Notary Public
 My Commission Expires Oct. 5, 1962

This plat of "OSTEOPATHIC ADDITION"
 to Wichita, Kansas has been submitted to and consid-
 ered by the Wichita, Sedgwick County Metropolitan
 Area Planning Commission and is hereby transmitted
 to the Board of City Commissioners with the rec-
 ommendation that such plat be approved as prop-
 osed. Done on this 28th day of May 1961.
 The Wichita, Sedgwick County Metropolitan Area
 Planning Commission.

Robert Wright, Chairman
Bess Cavanaugh, Secretary

OSTEOPATHIC ADDITION

TO WICHITA KANSAS



Approved by the Board of
 City Commissioners this 14th day of
 November 1961.

Robert Wright, Mayor
C. H. Smith, City Clerk

Approved by the Board of
 County Commissioners this 1st day
 of December 1961.

H. O. Williams, County Clerk

Entered on transfer record
 this 1st day of December 1961.

H. O. Williams, County Clerk

24372 State of Kansas } s.s. This is to certify
 Sedgwick County } that this plat was filed for record in
 the office of the Register of Deeds this
 14th day of November 1961, at 11:00
 o'clock A.M., and is duly recorded.

Robert E. Stebbins, Register of Deeds
B. C. Smith, Deputy